

Ravena Cement Plant Public Health Assessment

Information Sheet #3: Phase Two Report - Public Health Assessment (March 2013)

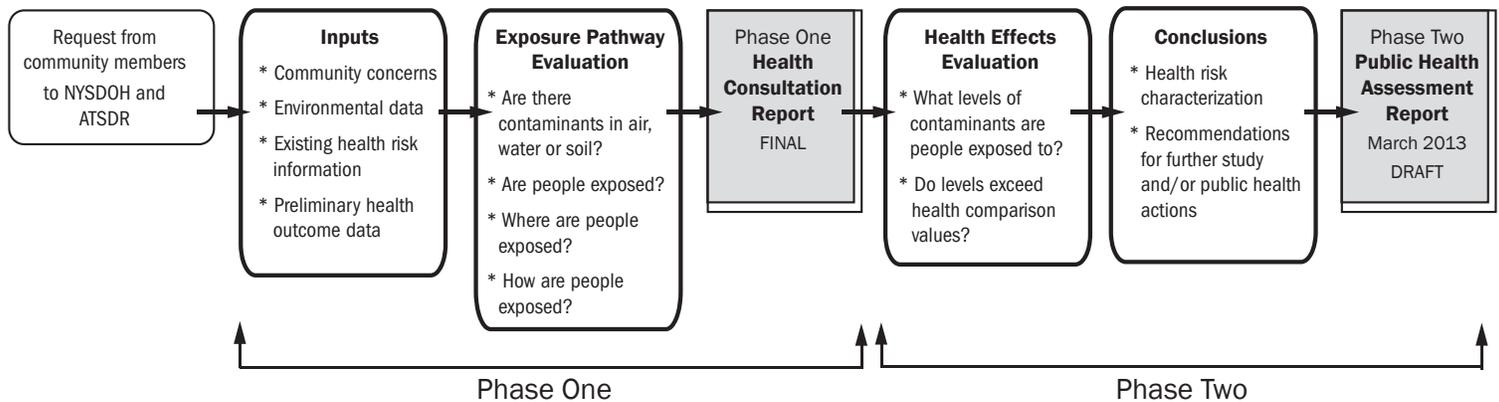
This Information Sheet #3 summarizes the Public Health Assessment completed for the Lafarge cement plant located in Ravena NY.

Introduction

Community Advocates for Safe Emissions (CASE) requested that the New York State Department of Health (NYS DOH) investigate the impact on community health posed by the Lafarge cement plant in Ravena NY. To accomplish this, NYS DOH and the Agency for Toxic Substances and Disease Registry (ATSDR) completed a health assessment of contaminants released from the cement plant over the 50 years it has been operating. A health assessment is a sequential, structured process that estimates community exposures to contaminants released from a site or facility and assesses whether they increase the risk for health effects in a community.

The health assessment for the Ravena cement plant was completed in two sequential phases, each summarized in a separate report, as illustrated in the diagram below. *Information Sheet #1* (available at <http://www.health.ny.gov/environmental/investigations/lafarge/>) has more details about the phased health assessment process for the Ravena cement plant.

Steps in the NYS DOH-ATSDR health assessment for the Ravena cement plant



What is summarized in the Phase One Health Consultation (HC)?

During Phase One, NYS DOH collected, summarized and evaluated all available information about contaminants and dust released from the cement plant over the 50 years it has been operating. NYS DOH then considered all this information to assess whether contaminants or dust from the cement plant were present in media (e.g., air, soil, surface water and sediment, plants and animals) with which people might come in contact. Based on this information, the Final Phase One Health Consultation (HC) report, which addresses all comments received from the public on a Draft Phase One HC report, concludes that people in the surrounding community might be exposed to contaminants released to air from the cement plant kiln stacks and to settled dust resulting from miscellaneous operations at the cement plant. Health risk associated with these two exposure pathways are evaluated in detail in Phase Two.

The Phase One HC report also summarizes previous assessments of health risk for contaminants released from the cement plant as well as readily available health outcome data for people residing within the six ZIP Code areas surrounding the plant. *Information Sheet #2* (available at <http://www.health.ny.gov/environmental/investigations/lafarge/>) has more details about the Phase One HC report.

What is summarized in the Phase Two Public Health Assessment (PHA)?

The health risk associated with contaminants in air and dust released from the cement plant, identified in the Phase One HC, is evaluated in detail in the Draft Phase Two Public Health Assessment (PHA). Air concentrations

of chemicals released from the cement kiln stack (estimated using an air dispersion model) are compared to regulatory, guidance and other health-based comparison values to determine whether they are higher than levels that might harm health. Information about settled dust originating from the cement plant is also evaluated to determine whether it might harm health. The Draft Phase Two PHA also compares health outcome information available for the six ZIP Code areas surrounding the cement plant to other geographic areas to determine whether there are increases in any health outcome among individuals residing near the cement plant.

What are the conclusions of the Draft Phase Two PHA?

The Draft Phase Two PHA reaches the following conclusions about the impact of the Ravenna cement plant on community health:

- Breathing ground-level air concentrations of most contaminants, including mercury and other metals, released from the cement plant stack are not expected to harm people's health.
- For the general public, breathing ground-level air concentrations of sulfur dioxide (SO₂) or nitrogen dioxide (NO₂) released from the cement plant stack are not expected to harm people's health. For those with pre-existing respiratory conditions, estimated concentrations of SO₂ and NO₂ at isolated, hilltop locations near the cement plant, might be temporarily high enough to worsen respiratory symptoms.
- Touching, breathing or accidentally eating settled dust originating from the cement plant and potentially present in the community is not expected to harm people's health.
- The health status of the communities near the cement plant is similar to the health status of other areas in the region and state.
- Additional studies or public health actions are not needed to address any public health risk from the Ravenna cement plant.

In the Department's review, elevated rates of hospitalizations were found for some respiratory conditions commonly associated with smoking in the six ZIP Code area surrounding the cement plant - chronic obstructive pulmonary disease (COPD) and chronic bronchitis. Symptoms of COPD and other respiratory conditions can be worsened by exposure to indoor as well as outdoor pollutants including SO₂ and NO₂. Those with respiratory diseases are advised to pay attention to regional air quality advisories, be aware that SO₂ and NO₂ or other common air pollutants addressed in air quality advisories may exacerbate their conditions, and restrict outdoor activities as recommended.

NYS DOH will continue to work with the New York State Department of Environmental Conservation (NYS DEC) to announce regional air quality advisories to let the public and local health departments know when outdoor physical activities should be limited to protect health. More information on regional air quality advisories is available at the NYS DEC website at: <http://www.dec.ny.gov/chemical/34985.html>

Next Steps

Members of the community and other interested stakeholders are invited to review and comment on the Public Comment Draft Phase Two PHA document during a 60-day public comment period which ends on **May 17, 2013**. To view and/or print the full PHA document (along with comment form), visit the NYS DOH website at <http://www.health.ny.gov/environmental/investigations/lafarge/> or call (518) 402-7530 to request a copy by mail.